## REMARKS

Claims 55, 59-60, 62-73, 90-91, 95 and 101-120 currently are pending. Claims 55 and 70 currently have been amended.

The Examiner stated that newly submitted claims 101-120 are directed to an invention that is independent or distinct from the invention originally elected because claims 101-120 are directed to methods and products that require vulneration induced stress conditions, which conditions were not searched and examined as part of the originally elected invention.

Applicants' elected group I has the original claims 1, 3-7, 9-11, 13-16, 17-41 and 43-54 which were drawn to a DNA construct with the promoter of *B. vulgaris* V-ATPase subunit c isoform 2 (SEQ ID NO: 1), a polynucleotide of SEQ ID NO: 1, a recombinant vector, a microorganism, a transgenic plant and a plant cell, methods of expressing a heterologous gene, and uses of the above DNA construct and promoter. Applicants believe group I includes all uses of the above promoters and/or DNA constructs, the use of the above promoters and/or of the above DNA constructs for expressing a heterologous gene under stress conditions in general, no matter whether the stress is induced by the influence of salt or of vulneration of the plant.

Therefore, applicants respectfully request that claims 101-120 be considered by the Examiner.

The Examiner rejected claim 95 under 35 USC § 112, ¶1 as failing to comply with the written description requirement because the Examiner believes the instant disclosure does not describe DNA constructs comprising the promoter of the *B. vulgaris* V-ATPas subunit c, isoform 2 of SEQ ID NO: 1, wherein at least one pyrimidine stretch is inserted in the promoter.

Furthermore, the Examiner argues that the subject matter of claim 95 "is not enabled

because the effect of inserting at least one further pyrimidine stretch of unspecified sequence and length into an unspecified location of SEQ ID NO: 1 is unpredictable." The Examiner uses Acuto et al. to attempt to confirm this unpredictability because according to Acuto et a. a 383 bp sequence containing pyrimidine rich polypyrimidine binding site is introduced into various promoters. It could be shown that for some promoters an "expression enhancement by the pyrimidine-rich region" is observed and for other promoters no expression enhancement is observed. But it should be considered that in Acuto et al. only "a polypyrimidine-rich sequence," but not a pure "polypyrimidine stretch" as claimed in claim 95 (consisting merely of Cs and Ts) is inserted.

According to the Examiner, figure 5 from Becker et al. Nucliec Acid Res. 1998, Apr. 15; 26(8), 1951-1958 shows that a polypyrine/polypyrimidine-element positioned in specific promoter sequences has no clearly detectable activity as a cis-acting transcriptional regulatory element. But on the other hand, it is clearly shown in Figure 5C and 5D that the presence of the polypurine/polypyrimidine-element in the test promoters leads at least to a "slight increase" in promoter activity under non-induced conditions and to a "stronger increase" in promoter activity under induced conditions (see Fig. 5D, white rectangles in the right panel). The fact that the increase in promoter activity is only "moderate" under the tested conditions does not necessarily mean that a *B. vulgaris* V-ATPase subunit c, isoform 2 promoter with an introduced polypyrine/polypyrimidine element is not with a high probability suitable for the expression of heterologous genes in plant cells. Therefore, the fact that the extent of promoter activity increase may be higher or lower depending on the precise sequence of the pyrimidine stretch, on the

precise promoter used and on the precise location of the pyrimidine stretch in the promoter would not constitute undue experimentation.

Furthermore, one of ordinary skill in the art would have concrete hints which precise sequences should be used and where these pyrimidine sequences should be introduced. For instance, it is described in the specification on page 12, line 5 to 9 that also describe V-ATPase isoforms A and c1 each have two pyrimidine stretches and isoform c2 has one pyrimidine stretch. The sequences and positions of these pyrimidine stretches can be seen from the sequence protocol (see for instance SEQ ID NO: 1, 1938-1970 bp). Moreover, there are other studies which are known, for instance from Noriyuki Yanaka et al. Endocrinology, Vol. 139, No. 3, p. 1389-1400, 1998, wherein pyrimidine stretches composed of four CTTTTT-repeated sequences in the region from -33 to +13 had been mapped as being responsible for the proximal promoter activity by the construction of deletion constructs comprising the natriuretic peptide receptor C (NPR-C) promoter or parts thereof each linked to the luciferase gene (see Figure 7). Therefore, the person skilled in the art will have sufficient indications for choosing the appropriate pyrimidine stretch sequence and the appropriate position in the promoter for this additional pyrimidine stretch to maximize the promoter activity with a high probability of success.

According to the Examiner's argument, Maiti et al., BMC Mol. Bio. 2001, 2(1): 11. Epub 2001 Oct 8 teaches that the beta-galactosidase expression is reduced 12-fold in cells carrying a single copy of poly purine pyrimidine sequences inserted within a nucleosome positioned upstream of the beta-galactorsidase in yeast between the cycI promoter and gal 10 upstream activating sequences (UAS) and that his reduction in expression is correlated with reduced

transcription (Fig. 3 and 4). Applicants believe this document teaches that the beta-galactosidase expression for promoter constructs with promoters carrying a single copy of a poly purine pyrimidine sequence (42 units) **is not 12 fold reduced** in comparison to promoter constructs **without purine pyrimidine sequence in the promoter region** but is **12 fold reduced** in comparison to promoter constructs **with promoters with a duplex sequence** (485 units, see Fig. 3b and 3c). This very high beta-galactosidase expression in the presence of a duplex sequence instead of a single copy poly purine pyrimidine sequence can also be explained by the fact that the duplex control sequence might also have a strong cis-acting transcriptional regulatory effect which might even be larger than the one of promoters carrying a single copy purine pyrimidine sequence.

In view of the above, applicants respectfully request the Examiner to withdraw the written description and enablement rejection of claim 95.

The Examiner stated that claim 55 is indefinite in the use of parentheses. In response, applicants herein delete the parentheses in claim 55.

The Examiner stated that claim 70 is indefinite in the recitation of "The transgenic plant" as there is insufficient antecedent basis for this limitation. In response, applicants amend claim 70 to recite "A transgenic plant."

In view of the present amendment and remarks, applicants consider that the rejections of record have been obviated and respectfully solicit passage of the application to issue.

Applicants herein request a one month extension of time and attached the appropriate fee.

Please charge any shortage in fees due in connection with the filing of this paper,

including Extension of Time fees to Deposit Account No. 14-1437. Please credit any excess fees to such deposit account.

Respectfully submitted,

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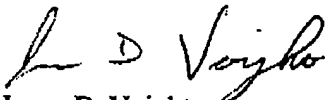

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